IN THE CLAIMS:

Please amend claims 1 and 8 as follows.

1. (Currently Amended) A system for transmitting internal messages in a local net-work while maintaining message synchronism, comprising:

multiple sending computer units (CPUs), each for running at least one sending application process for sending an internal message;~~,~~ ~~said message being sent to two or more recipients,~~ and

multiple receiving computer units (CPUr), each for running at least one receiving application process for receiving a sent internal message, ~~at least two copies of~~ each receiving application process having at least one replicated copy residing in at least one of said multiple receiving computer units, wherein when sending the internal message from a sending application process to an intended receiving application process, said sending application process is arranged to send an identical copy of said internal message to at least one replicated copy of said intended receiving application process;

~~characterized in, that the system further comprises:~~

one interface unit (IF) per one or more computer units for buffering and relaying internal messages sent to and from the corresponding computer units;~~,~~

multiple external links (SrL), each for linking a computer unit to its corresponding interface unit;~~,~~ and

an internal interconnecting device (IxD) for receiving internal messages relayed by the interface units corresponding to the sending computer units, and for forwarding each

received internal message to the interface units corresponding to the respective receiving computer units one received internal message at a time, said interconnecting device internally coupled with the interface units,

wherein at least one of said interface units, at least one of said external links and said internal interconnecting device are arranged to forward ~~an~~ said identical copy of ~~an~~ said internal message~~,~~ sent by ~~one of~~ said sending application process ~~processes~~, to said intended receiving application process and to each ~~of the at least two copies~~ replicated copy of ~~a corresponding~~ said intended receiving application process for receipt in identical order, and

wherein at least one of said interface units, at least one of said external links and said internal interconnecting device are arranged to route an internal message sent by a sending application process to a receiving application process running in a same computer unit via said interconnecting device.

2. (Original) The system according to claim 1, characterized in that each interface unit further comprises:

a transmitting buffer (TX) for storing one or more message to be sent until processed by the interconnecting device, and

a receiving buffer (RX) for storing one or more received messages until processed by the corresponding computer unit.

3. (Original) The system according to claim 1, characterized in that messages are sent as multicasts by the sending application process.

4. (Cancelled)

5. (Original) The system according to claim 1, characterized in that the interconnecting device is an internal bus.

6. (Original) The system according to claim 1, characterized in that the interconnecting device is a crossbar.

7. (Original) The system according to claim 1, characterized in that the interconnecting device and the interface units coupled to it are implemented as a modified LAN switch.

8. (Currently Amended) A system for transmitting internal messages in a local network while maintaining message synchronism, comprising:

multiple sending computer units (CPUs), each for running at least one sending application process for sending an internal message~~,;~~ ~~said message being sent to two or more recipients using group addressing,~~ and

multiple receiving computer units (CPUr), each for running at least one receiving application process for receiving a sent internal message, ~~at least two copies of~~ each receiving application process having at least one replicated copy residing in at least one of said multiple receiving computer units, wherein when sending the internal message from a sending application process to an intended receiving application process, said sending application process is arranged to send by using group addressing an identical copy of said internal message to at least one replicated copy of said intended receiving application process;

~~characterized in, that the system further comprises:~~

multiple multiplexer units (MUX), each for collecting internal messages from and distributing internal messages to one or more sending computer units~~,~~;

one interface unit (IF) per one or more multiplexer units for buffering and relaying internal messages sent to and from the corresponding multiplexer units~~,~~; and

an internal interconnecting device (IxD) for receiving internal messages relayed by the interface units corresponding to the sending computer units, and for forwarding each received internal message to the interface units corresponding to the respective receiving computer units one received internal message at a time, said interconnecting device internally coupled with the interface units,

wherein at least one of said interface units, at least one of said multiplexer units and said internal interconnecting device are arranged to forward ~~an~~ said identical copy of ~~an~~ said internal message, sent by ~~one of~~ said sending application process ~~processes~~, to

said intended receiving application process and to each ~~of the at least two copies~~ replicated copy of ~~a corresponding~~ said intended receiving application process for receipt in identical order, and

wherein at least one of said interface units, at least one of said multiplexer units and said internal interconnecting device are arranged to route an internal message sent by a sending application process to a receiving application process running in a same computer unit via said interconnecting device.

9. (Original) The system according to claim 8, characterized in that each interface unit further comprises:

a transmitting buffer (TX) for storing one or more message to be sent until processed by the interconnecting device, and

a receiving buffer (RX) for storing one or more received messages until processed by the corresponding multiplexer unit.

10. (Original) The system according to claim 8 characterized in that messages are sent as multicasts by the sending application process.

11. (Cancelled)

12. (Original) The system according to claim 8, characterized in that the interconnecting device is an internal bus.

13. (Original) The system according to claim 8, characterized in that the interconnecting device is a crossbar.

14. (Original) The system according to claim 8, characterized in that the interconnecting device, the interface units coupled to it and the multiplexer units are implemented as modified LAN switches.

15. (Original) The system according to claim 8, characterized in that a multiplexer unit is connected to an interface unit via another multiplexer unit.